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Serial No.: 10/685,925

Confirmation No.: 7050

Filed: October 15, 2003

For: ASSAYS TO DETECT OR QUANTIFY BACTERIAL OR VIRAL PATHOGENS AND CONTAMINANTS**Remarks**

The Office Action mailed October 19, 2007, has been received and reviewed. Claims 25, 32-34, and 38-40 having been canceled, without prejudice, the pending claims are claims 1-9, 20-24, 26-31, 35-37, and 41-47. Claims 1, 22, 23, 29, 35, 41, 42, and 45 are amended. Reconsideration and withdrawal of the rejections are respectfully requested.

Amendments to the Claims

Claims 1, 22, 29, and 45 are amended to recite transferring the bacteriophage comprising a binding agent immobilized on a substrate from the sample containing the bacterial cell or new bacteriophage.

Claims 35 and 41 are amended to recite immobilizing the bacteriophage comprising a binding agent on a first substrate and transferring them from the sample containing new bacteriophage.

These amendments are supported in Applicants' specification at, for example, page 11, lines 30-33; page 17, lines 16-21; page 26, lines 11-24; and page 28, lines 12-23.

Claims 23 and 42 are amended to recite transferring complexes of new bacteriophage and second substrate comprising immobilized binding agent for the new bacteriophage.

These amendments are supported in Applicants' specification at, for example, from page 26, line 24 through page 27, line 5.

The 35 U.S.C. §112, Second Paragraph, Rejection

Claim 25 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 25 is canceled herein, rendering the rejection moot.

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For: ASSAYS TO DETECT OR QUANTIFY BACTERIAL OR VIRAL PATHOGENS AND CONTAMINANTS**The 35 U.S.C. §103 Rejections****Claims 1-4, 6, 9, 20, 45, and 46 are patentable over Rees *et al.* in view of Miller *et al.***

Claims 1-4, 6, 9, 20, 45, and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rees *et al.* (WO 92/02633, hereinafter "Rees") in view of Miller *et al.* (WO 01/09370 - as translated in U.S. 2002/0127547, hereinafter "Miller"). Applicants respectfully traverse.

Applicants respectfully submit that the Office Action fails to set forth a *prima facie* case of obviousness because, at a minimum, the combination of Rees and Miller ("the suggested combination") fails to set forth each and every feature recited in claim 1. Moreover, one skilled in the art would have had no motivation to combine the documents as suggested in the Office Action.

The combination of Rees and Miller fails to set forth each and every feature recited in the rejected claims.

Claims 1 and 45 are independent. Each of claims 2-4, 6, 9, and 20 depends, directly or indirectly, from claim 1. Claim 46 depends from claim 45. Thus, remarks that refer to claim 1 or claim 45 apply equally to any claim that depends from a specified independent claim. Claim 1 recites a method of detecting a bacterial cell in a sample. Claim 45 recites a method of quantifying bacterial cells in a sample. Each method includes, in part, "transferring the bacteriophage comprising a binding agent immobilized on a substrate from the sample containing the bacterial cell or new bacteriophage[.]" The method also includes detecting (in the case of claim 1) or quantifying (in the case of claim 45) "new bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred[.]"

Applicants respectfully submit that the combination of documents fails to set forth all of the features recited in claim 1 and claim 45. Specifically, the suggested combination fails to set forth transferring immobilized bacteriophage from the sample containing the bacterial cell or new bacteriophage. The suggested combination also fails to set forth detecting or quantifying

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new bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred.

In Applicants' previous response, filed September 11, 2007, Applicants stated that Rees teaches detecting bacteria by allowing bacteriophage specific for a target bacterium to infect target bacteria if present in a sample. Extracellular bacteriophage are killed without killing phage-infected bacteria. The infected bacterial cells produce progeny phage, which may be detected by various methods. Applicants also noted that the Office Action mailed May 11, 2007 acknowledged that Rees fails to set forth immobilizing the parent phage and removing the parent phage after progeny phage are released by the infected bacteria (Office Action, May 11, 2007, page 4). Applicants respectfully submit that Rees further fails to set forth transferring parent phage, whether immobilized or not, from the sample.

The present Office Action states that Rees clearly teaches removing parent phage from a sample. (Office Action, October 19, 2007, page 9). Applicants respectfully submit that Rees fails to teach or suggest transferring parent phage from the sample. Applicants submit that with respect to parent phage, Rees uses the term "remove" and variations thereof in the sense of "to do away with; eliminate" (*The American Heritage® Dictionary of the English Language*, Fourth Edition. Houghton Mifflin Company, 2004) and does not teach or suggest transferring parent phage from the sample, as recited in claim 1 and claim 45. For example, Rees states, "The removal or killing of unbound phage can be achieved by a variety of methods for example [sic] virucidal agents, heat, and removal of chemicals essential for phage stability [sic] etc." (Rees, page 6, lines 16-19, emphasis added). Here, Rees teaches only killing or inactivating the parent phage *in situ*—in the sample—and provides no teaching or suggestion of either transferring parent phage from the sample or any method by which such a transfer could be accomplished. Later, Rees states:

[A] chemical or physical treatment would be used to destroy, remove, neutralise or inactivate all remaining bacteriophage. Examples of chemical treatment include virucidal but sub-antimicrobial levels of biocides. Examples of physical treatment include virucidal but sub-antimicrobial levels of heat. After destruction of the bacteriophage, chemical virucides would be neutralised and, if heat was

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utilised, temperatures returned to those optimal for microbial growth.” (*Id.*, page 15, lines 4-13).

Again, Rees teaches only treatments that would kill, inactivate, or destroy the parent phage *in situ* and provides no teaching or suggestion of transferring the parent phage from the sample or any method by which such a transfer would be accomplished. Notably, after reciting exemplary treatments, Rees states, “After destruction of the bacteriophage...” Thus, Rees does not appear to contemplate destruction or transfer of the parent phage, only *in situ* destruction. Still later, Rees states, “Samples that contain no target bacteria cannot protect (eclipse) any bacteriophage from the virucidal treatment.” (*Id.*, page 16, lines 3-5). Yet again, Rees refers to killing—i.e., virucidal treatment—the parent bacteriophage *in situ* and provides no teaching or suggestion regarding the possibility and/or a method of transferring parent phage from the sample. Finally, each of Examples 2-6 teaches chemical inactivation of bacteriophage. Thus, in sum, Rees provides exhaustive and repeated support for methods that include inactivating parent bacteriophage *in situ*. In contrast, Rees fails to provide even a single express teaching or suggestion of removing parent bacteriophage in the sense of transferring parent bacteriophage from the sample, as recited in claim 1 and claim 45.

For at least these same reasons, Applicants submit that Rees fails to teach or suggest either detecting (as in claim 1) or quantifying (as in claim 45) new bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred.

In Applicants’ previous response, Applicants stated that Miller fails to teach or suggest removing immobilized phage from the sample subjected to a detection assay. The present Office Action notes that “the claims refer only to ‘the sample,’ which would appear to include those portions of the sample that do not react with the phages[.]” (Office Action, page 7-8). Claim 1 and claim 45 recite transferring the bacteriophage comprising a binding agent immobilized on a substrate from the sample containing the bacterial cell or new bacteriophage. Miller fails to

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teach or suggest transferring parent bacteriophage from a sample containing the bacterial cell or new bacteriophage.

The Office Action further states that Applicants' distinction of what constitutes the sample from which the immobilized phage are transferred is "meaningless" based on the teachings of Rees and Miller (Office Action, page 8). The Office Action acknowledges that the samples that are subjected to detection assays are different in Rees and Miller. The position in the Office Action concludes as follows, "In particular, it would have been obvious to those of ordinary skill in the art to remove the substrate comprising the immobilized parent phage prior to the detection of the progeny phage as, at that point, the presence of the substrate would no longer be required, its function having been fulfilled." (*Id.*). This conclusion may be proper if Rees did, in fact, teach transferring the parent phage from the sample as suggested in the Office Action. Applicants remarks provided above refute the this position, however. Rees teaches destroying parent phage before detecting progeny phage; Miller teaches transferring bacteria bound to phage from a sample and detecting the bound bacteria. The combination of Rees and Miller fails to teach or suggest transferring parent bacteriophage from the sample containing the bacterial cell or new bacteriophage.

Miller further fails to teach or suggest either detecting (as in claim 1) or quantifying (as in claim 45) new bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred. Miller teaches detecting bacteria bound to immobilized parent bacteriophage. Miller does not teach or suggest detecting bacteriophage, nor does Miller teach or suggest detecting any component remaining in a sample from which the immobilized bacteriophage have been transferred.

Because neither Rees nor Miller teaches or suggests either detecting (as in claim 1) or quantifying (as in claim 45) new bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred, the combination also fails to teach or suggest either detecting (as in claim 1) or quantifying (as in claim 45) new

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bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred.

Because the combination of Rees and Miller fails to teach or suggest transferring parent bacteriophage from the sample containing new bacteriophage, the combination fails to establish a *prima facie* case of obviousness against claim 1 and claim 45. The combination of Rees and Miller also fails to establish a *prima facie* case of obviousness against claim 1 and claim 45 because the combination fails to teach or suggest detecting (as in claim 1) or quantifying (as in claim 45) new bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred. Applicants therefore respectfully submit that the rejection of claims 1-4, 6, 9, 20, 45, and 46 under 35 U.S.C. §103(a) as being unpatentable over the combination of Rees and Miller is improper and request that the rejection be withdrawn.

One skilled in the art at the time the invention was made would have possessed no motivation to combine Rees and Miller as suggested in the Office Action

Applicants respectfully submit that one skilled in the art would have lacked motivation, at the time the invention was made, to combine Rees and Miller as suggested in the Office Action. As noted in the preceding section, Rees teaches destroying parent phage before detecting progeny phage; Miller teaches transferring bacteria bound to phage from a sample and detecting the bound bacteria. Rees contains no motivation to use immobilized phage and Miller contains no motivation to detect progeny phage. Thus, neither document provides motivation to consult the other. Accordingly, the assertion that the combination of Rees and Miller teaches transferring immobilized parent phage from a sample constitutes picking and choosing from the documents that has been held impermissible by the predecessor to the Federal Circuit:

It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. *In re Wesslau*, 353 F.2d 238, 241, 147 U.S.P.Q. 391, 393 (C.C.P.A. 1965).

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In *In re Wasslau*, the appealed claims were to a novel catalyst system that differed from the primary prior art reference only in the identity of some of the compounds employed in the catalyst system. Those compounds were taught in secondary references. The Examiner and the Board reasoned that the appellant's catalyst system was met by mere substitution of the compounds from the secondary references into the catalyst system of the primary reference. However, the court noted that none of the references suggested the combination or the result that would be obtained by making the combination. The court concluded, "The fallacy of this reasoning is that no one of the references *suggests* such a substitution, quite apart from the result which would be obtained thereby. Such piecemeal reconstruction of the prior art patents in the light of appellant's disclosure is contrary to the requirements of 35 U.S.C. 103." (*Id.*, emphasis in original).

The court's analysis applies to the present rejection. Applicants' claims are to a method that differs from Rees by employing bacteriophage that include a binding agent so that the parent phage may be removed from the sample rather than being destroyed *in situ* as is taught in Rees. Miller teaches immobilized bacteriophage. The Office Action reasons that the subject matter of Applicants' claims can be met by mere substitution of the immobilized phage taught in Miller into the method taught by Rees. However, neither Rees nor Miller suggests such a combination. Rees does not suggest transferring parent bacteriophage from the sample by any method, let alone by immobilizing the phage. Miller does not suggest detecting or quantifying progeny phage or, for that matter, any component remaining in the sample from which the immobilized phage are transferred. Like the rejection in *In re Wesslau*, the present rejection constitutes a "piecemeal reconstruction of the prior art patents in the light of [Applicants'] disclosure" and is improper.

The Office Action relies, in part, on the Supreme Court decision in *KSR International v. Teleflex Inc.*, (82 U.S.P.Q.2d, 1385, 2007) for the proposition that a "'combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.' Page 1389." (Office Action, page 6). Applicants respectfully submit that the

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reliance on *KSR International v. Teleflex Inc.* is misplaced. *KSR* involved an invention in the predictable mechanical arts. In contrast, Applicants' claims are directed to subject matter that is part of the biological arts, which, along with the chemical arts, are considerably less predictable than the mechanical arts.

Since the Supreme Court's decision in *KSR*, the Federal Circuit has reaffirmed the *prima facie* obviousness test for less predictable arts such as the chemical and biological arts in *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 83 U.S.P.Q.2d 1169 (Fed. Cir. 2007) ("... in order to find a *prima facie* case of unpatentability ... a showing that the 'prior art would have suggested making the specific molecular modifications necessary to achieve the claimed invention' was also required.") *Id.* at p. 1174. The Federal Circuit stated that "[w]hile the *KSR* Court rejected a rigid application of the teaching, suggestion, or motivation ('TSM') test in an obviousness inquiry, the Court acknowledged the importance of identifying 'a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does'." *Id.*

Because one skilled in the art would have lacked motivation, at the time the invention was made, to combine Rees and Miller as suggested in the Office Action, the combination fails to establish a *prima facie* case of obviousness against claim 1 and claim 45. Applicants therefore respectfully submit that the rejection of claims 1-4, 6, 9, 20, 45, and 46 under 35 U.S.C. §103(a) as being unpatentable over the combination of Rees and Miller is improper and request that the rejection be withdrawn.

Claims 7, 8, 21, and 47 are patentable over Rees in view of Miller, further in view of Vafai

Claims 7, 8, 21, and 47 stand rejected as being unpatentable over Rees and Miller as applied to claims 1-4, 6, 9, 20, 45, and 46, and further in view of Vafai (U.S. Patent 5,824,319). Applicants respectfully traverse.

Each of claims 7, 8, and 21 depends, directly or indirectly, from claim 1. Therefore, remarks made above that refer to claim 1 apply equally to claims 7, 8, and 21. Claim 47 depends

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from claim 45. Therefore, remarks made above that refer to claim 45 apply equally to claim 47.

The teachings and deficiencies of the combination of Rees and Miller are described in the immediately preceding section. Vafai is cited for teaching immunoassays in which an antibody is conjugated to a fluorescent dye. Consequently, Vafai fails to cure the deficiencies of the combination of Rees and Miller. Applicants therefore submit that claims 7, 8, 21, and 47 are patentable over the combination of Rees, Miller, and Vafai.

Applicants respectfully submit that claims 7, 8, 21, and 47 satisfy the requirements of 35 U.S.C. §103(a) and respectfully request that the rejection be withdrawn.

Claims 22-25, 27, and 28 are patentable over Rees and Miller, and further in view of Vonk *et al.*

Claims 22-25, 27, and 28 stand rejected as being unpatentable over Rees in view of Miller as applied to claims 1-4, 6, 9, 20, 45, and 46, and further in view of Vonk *et al.* (J. Immunol Methods 137:133-39, hereinafter "Vonk"). Applicants respectfully traverse.

Claim 22 recites a method of detecting a bacterial cell in a sample. Each of claims 23-25, 27, and 28 depends from claim 22 and, therefore, includes all of the features recited in claim 22. Thus remarks that refer to claim 22 apply equally to claims 23-25, 27, and 28.

The teachings and deficiencies of the combination of Rees and Miller are described above in connection with the rejection of claims 1-4, 6, 9, 20, 45, and 46 in view of Rees and Miller. Vonk fails to cure the deficiencies of the combination of Rees and Miller regarding transferring immobilized parent phage from the sample containing new bacteriophage and detecting new bacteriophage in the sample from which bacteriophage comprising a binding agent immobilized on a substrate have been transferred the material subjected to the detection assay. Applicants therefore submit that claims 22-25, 27, and 28 are patentable over the combination of Rees, Miller, and Vonk.

Applicants respectfully submit that claims 22-25, 27, and 28 satisfy the requirements of 35 U.S.C. §103(a) and respectfully request that the rejection be withdrawn.

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Claims 5 and 26 are patentable over Rees in view of Miller and Vonk, and further in view of Sun *et al.*

Claims 5 and 26 stand rejected as being unpatentable over, respectively, Rees and Miller as applied to claims 1-4, 6, 9, 20, 45, and 46; or Rees and Miller in view of Vonk as applied to claims 22-25, 27, and 28, and further in view of Sun *et al.* (*J. Indust. Microbiol. Biotechnol.*, 25:273-75, hereinafter "Sun").

Claim 5 depends from claim 1 and claim 26 depends from claim 22. Thus, remarks made above regarding the patentability of claim 1 apply equally to claim 5. Similarly, remarks made above that refer to claim 22 apply equally to claim 26.

Sun is cited for teaching immobilizing phage through biotinylation. Consequently, Sun fails to cure the deficiencies of the combination of Rees and Miller (with respect to claim 1) and the combination of Rees, Miller, and Vonk (with respect to claim 22). Applicants therefore submit that claim 5 is patentable over the combination of Rees, Miller, and Sun. Applicants further submit that claim 26 is patentable over the combination of Rees, Miller, Vonk, and Sun.

Applicants respectfully submit that claims 5 and 26 satisfy the requirements of 35 U.S.C. §103(a) and respectfully request that the rejection be withdrawn.

Claims 35-37 are patentable over Madonna *et al.* in view of Rees

Claims 35-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Madonna *et al.* (U.S. 7,166,425, previously published as U.S. 2004/0224359, hereinafter "Madonna"), in view of Rees. Applicants respectfully traverse.

Claim 35 is independent. Each of claims 36 and 37 depends from claims 35. Thus, remarks that refer to claim 35 apply equally to claim 36 and claim 37.

Claim 35 recites a method of quantifying bacterial cells in a sample that includes, in part, incubating a sample that contains a bacterial cell and parent bacteriophage under conditions effective for the bacteriophage to infect the bacterial cell, immobilizing the parent bacteriophage on a first substrate, and transferring the parent bacteriophage from the sample. The Office

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Action characterizes claim 35 as reading on methods “where the parent phage are immobilized on a substrate after the incubation of the infected sample and release of the progeny phage.”

(Office Action, page 12). The Office Action asserts that “the priority provisional application of the current application does not provide adequate descriptive support for embodiments wherein the parent phage is immobilized after release of the progeny phage to pre-date the teaching of Madonna.” Applicants respectfully disagree.

Applicants’ priority provisional application expressly exemplifies biotinylating phage, incubating a sample with “free biotinylated phage”, immobilizing the biotinylated phage using streptavidin-coated beads, and transferring the immobilized parent phage from the sample. (U.S. Provisional Patent Application Serial No. 60/418,822, hereinafter the “priority document”, page 18, line 28 through page 19, line 8). The exemplified embodiment includes immobilizing parent phage prior to the time at which the infected bacterial cells are lysed and, therefore, prior to the release of new bacteriophage (*Id.*, page 19, lines 7-10). Thus Applicants’ priority document expressly describes a species of the genus encompassed by the subject matter recited in claim 35.

M.P.E.P. §2163 (II)(A)(3)(a)(ii) states that the written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice, reduction to drawings, or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the claimed genus. Applicants respectfully submit that the disclosure of the priority document is a description of a representative number of species to adequately describe the genus recited in claim 35. Applicants describe an actual reduction to practice (priority document, page 18, line 24 through page 19, line 19). Moreover, Applicants’ specification describes (*Id.*, page 12, lines 22-26) the use of high avidity immobilizing agents such as, for example, streptavidin and biotin. The structure, chemical properties, and resulting selectivity of the high avidity immobilizing agents are well-known in the art. The avidity of high avidity

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immobilizing agents is such that one skilled in the art would have expected that modifying the method expressly exemplified in the Applicants' priority document by immobilizing the parent phage after release of the progeny phage would not interfere with the selective immobilization and subsequent transfer of parent phage. Thus, Applicants' priority document conveys to one skilled in the art that Applicants had possession of the subject matter encompassed by claim 35.

M.P.E.P. §2163 (II)(A)(3)(a)(ii) further instructs that "a representative number of species" means that the species which are adequately described are representative of the entire genus. One species can adequately support a genus. *In re Rasmussen*, 650 F.2d 1212, 214, 211 USPQ 323, 326-327 (CCPA 1981). In *In re Rasmussen*, the applicants' specification disclosed a single method of adhering one layer to another. The applicant sought a claim that recited "adheringly applying" one layer to another. The Examiner and the Board rejected the appealed claim, arguing that the application disclosed only one embodiment (applying adhesive to join the sheets) and that the subject matter of the sought claim was not supported by the disclosure. *Id.* at 325. The court ruled that the single embodiment was indeed sufficient to support a generic claim to "adheringly applying" because one skilled in the art reading the specification would understand that it is unimportant how the layers are adhered, so long as they are adhered. Similarly, Applicants' priority document discloses immobilizing parent phage using high avidity immobilizing agents. One skilled in the art would understand, knowing the structure, function, and resulting selectivity of the high avidity immobilizing agents that it is unimportant when the parent phage are immobilized—at least with respect to before or after release of progeny phage—so long as they are immobilized. Thus, the rationale of *In re Rasmussen* establishes that Applicants' exemplified species is sufficient to adequately describe the genus recited in claim 35.

Because Applicants' priority document adequately supports the subject matter encompassed by claim 35, Applicants respectfully submit that claim 35 is entitled to the priority date of the priority document and, therefore, pre-dates the teachings of Madonna. Consequently, Madonna is not proper prior art and any rejection under U.S.C. §103 based on Madonna is improper.

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Therefore, Applicants respectfully submit that the rejection of claims 35-37 under 35 U.S.C. §103(a) as being unpatentable over Madonna in view of Rees is improper and request that the rejection be withdrawn.

Claims 29-31 and 41-44 are patentable over Madonna in view of Rees, and further in view of Vonk

Claims 29-31 and 41-44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Madonna in view of Rees, and further in view of Vonk. Applicants respectfully traverse.

Claims 29 and 41 are independent. Claims 30 and 31 depend from claim 29. Thus, remarks that refer to claim 29 apply equally to claims 30 and 31. Claims 42-44 depends from claim 41. Thus, remarks that refer to claim 41 apply equally to claim 42-44.

Claim 29 recites a method of detecting a bacterial cell in a sample. Claim 41 recites a method of quantifying bacterial cells in a sample. Each is similar, in relevant part, to claim 35 discussed in the immediately preceding section, except that progeny phage are detected or quantified using a second substrate that includes a binding agent that specifically binds to the progeny phage.

The disqualification of Madonna as prior art is discussed in the immediately preceding section. Because Madonna is not proper prior art, any rejection under U.S.C. §103 based on Madonna is improper.

Therefore, Applicants respectfully submit that the rejection of claims 29-31 and 41-44 under 35 U.S.C. §103(a) as being unpatentable over Madonna in view of Rees is improper and request that the rejection be withdrawn..

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It is respectfully submitted that the pending claims are in condition for allowance and notification to that effect Applicant's Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted

By

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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 22 day of January, 2008, at 2:00 p.m. (Central Time).

By:

Name:

Sandy Truehart
Sandy Truehart